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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/648,234 | 08/27/2003 | Nobuyuki Kondou | KAY-0230 | 5363 |

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| EXAMINER |
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KOSOWSKI, ALEXANDER J

| ART UNIT | PAPER NUMBER |
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2125

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,234

Applicant(s)

KONDOU ET AL.

Examiner

Alexander J Kosowski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

AMENDMENTS TO THE CLAIMS

1. (Original) A three-dimensional object generating system comprising:

a user terminal; and

a three-dimensional plotter system connected to the user terminal through a network,

the three-dimensional plotter system comprising

a three-dimensional plotter,

a monitoring camera for imaging the operating conditions of the three-dimensional plotter,

and

a three-dimensional plotter controlling computer for controlling the three-dimensional plotter, and

the user terminal comprising

three-dimensional data generation means for generating three-dimensional data representing a three-dimensional object,

plotter data generation means for generating data for a three-dimensional plotter from the three-dimensional data representing the three-dimensional object,

monitoring means for receiving and displaying a video from the monitoring camera on the side of the three-dimensional plotter system through the network, to monitor the operating conditions of the three-dimensional plotter, and

remote operation means for remotely operating the three-dimensional plotter through the network.

2. (Original) The three-dimensional object generating system according to claim 1, further comprising

a knowledge providing server connected to the network and for providing to the user terminal information for supporting work for generating data for the three-dimensional plotter and work for remotely operating the three-dimensional plotter by a user at the user terminal,

the user terminal comprising browser means for accessing the knowledge providing server to obtain required information from the knowledge providing server and displaying the obtained information.

3. (New) The three-dimensional object generating system according to claim 1, wherein

the monitoring camera has an automatic focusing function and a manual focusing function.

DETAILED ACTION

- 1) Claims 1-2 and new claim 3 are presented for examination in light of the amendment filed 11/23/04.

Claim Rejections - 35 USC § 103

- 2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 3) Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farnworth et al (U.S. PGPUB 2003/0093173), further in view of Sepe, Jr. (U.S. PGPUB 2001/0047213).

Referring to claim 1, Farnworth teaches a three-dimensional object generating system comprising: a user terminal (Paragraph 0037) and a three-dimensional plotter system (Paragraph 0040), the three-dimensional plotter system comprising a three-dimensional plotter (Paragraph 0040), a monitoring camera for imaging the operating conditions of the three-dimensional plotter (Paragraph 0050), and a three-dimensional plotter controlling computer for controlling the three-dimensional plotter (Paragraph 0040), and the user terminal comprising three-dimensional data generation means for generating three-dimensional data representing a three-dimensional object (Paragraph 0037); plotter data generation means for generating data for a three-dimensional plotter from the three-dimensional data representing the three-dimensional object (Paragraph 0040), and monitoring means for receiving and displaying a video from the monitoring camera on the side of the three-dimensional plotter system to monitor the operating conditions of the

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three-dimensional plotter (Paragraph 0050). However, Farnworth does not explicitly teach that the three-dimensional plotter is connected to the user terminal through a network, that the camera is monitored through a network, nor that remote operation means exist for remotely operating the three-dimensional plotter through the network.

Sepe teaches a system for real-time monitoring and controlling of a device remotely located over a network (Paragraph 0045), whereby a user terminal is present to operate the remote device and monitor the device via a remote camera (Paragraph 0046).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the remote monitoring and controlling system taught by Sepe in the three-dimensional object generating system taught by Farnworth since this would allow for establishment of a virtual presence between geographically distributed remote users and hardware platforms that allows for real-time interactive hardware operation (Sepe, Paragraph 0014).

4) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farnworth, further in view of Sepe, further in view of Faruque et al (U.S. PG PUB 2003/0149500).

Referring to claim 2, Farnworth and Sepe teach the above. However, they do not explicitly teach a knowledge providing server connected to the network and for providing to the user terminal information for supporting work for generating data for the three-dimensional plotter and work for remotely operating the three-dimensional plotter by a user at the user terminal, the user terminal comprising browser means for accessing the knowledge providing server to obtain required information from the knowledge providing server and displaying the obtained information.

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Faruque teaches an interactive user terminal comprising a knowledge server accessible by a browser for providing to a user information for supporting work (Paragraphs 0021-0022 and 0028).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize the browser-accessible knowledge providing server taught by Faruque to provide work information to a user at a terminal in the system taught by Farnworth and Sepe since this would allow work to be completed without being dependent on the expertise of a user and since it would simplify and improve the reliability of the system (Faruque, Paragraph 0013).

5) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Farnworth et al, further in view of Sepe, Jr., further in view of Iida et al (U.S. Pat 4,816,860).

Referring to claim 3, Farnworth and Sepe teach the above. However, they do not explicitly teach that the monitoring camera has an automatic focusing function and a manual focusing function.

Iida teaches a camera which utilizes both manual and automatic focusing capabilities (col. 5 lines 9-20).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to utilize a camera with both automatic and manual focusing capabilities in the invention taught above since it is occasionally desirable for users of video cameras to want to stop auto focusing and manually focus a video camera (Iida, col. 1 lines 15-17), and since it may be more desirable to manually focus a camera rather than automatically focus after a zoom function is performed (Iida, col. 1 lines 25-31).

Response to Arguments

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6) Applicant's arguments filed 11/23/04 have been fully considered but they are not persuasive.

In response to applicant's argument that Farnworth is "incapable of providing three-dimensional object generating system capable of utilizing one three-dimensional plotter from a plurality of locations, much less provide a system in which a designer can remotely operate the three-dimensional plotter", examiner notes that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In the rejection above, there is clear motivation given by Sepe to utilize the remote monitoring and controlling system taught by Sepe in the three-dimensional object generating system taught by Farnworth, since this would allow for establishment of a virtual presence between geographically distributed remote users and hardware platforms that allows for real-time interactive hardware operation (Sepe, Paragraph 0014).

In addition, examiner notes that Farnworth does not specifically preclude network connection and control.

In response to applicant's argument that "Both Sepe and Faruque are silent as to their respective systems being used to monitor and control a three-dimensional object generating system", examiner notes that Sepe and Faruque are secondary references in U.S.C. 103 rejections, and notes that one cannot show nonobviousness by attacking references individually

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where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that "the only place where the motivation can be found is in Applicant's own disclosure", examiner notes the rejection of claim 1 and response to arguments above, whereby it is clearly noted that Sepe provides a motivation to combine.

Therefore, examiner maintains his rejections of claims 1-2 above, and notes the additional rejection of newly added claim 3.

Conclusion

7) **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

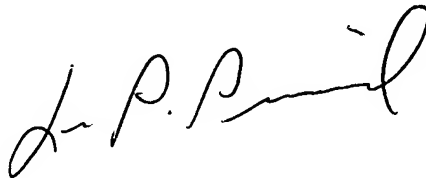
8) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander J Kosowski whose telephone number is 571-272-3744. The examiner can normally be reached on Monday through Friday, alternating Fridays.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on 571-272-3749. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. In addition, the examiner's RightFAX number is 571-273-3744.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Alexander J. Kosowski
Patent Examiner
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A handwritten signature in black ink, appearing to read 'L. P. Picard', with a stylized flourish at the end.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100